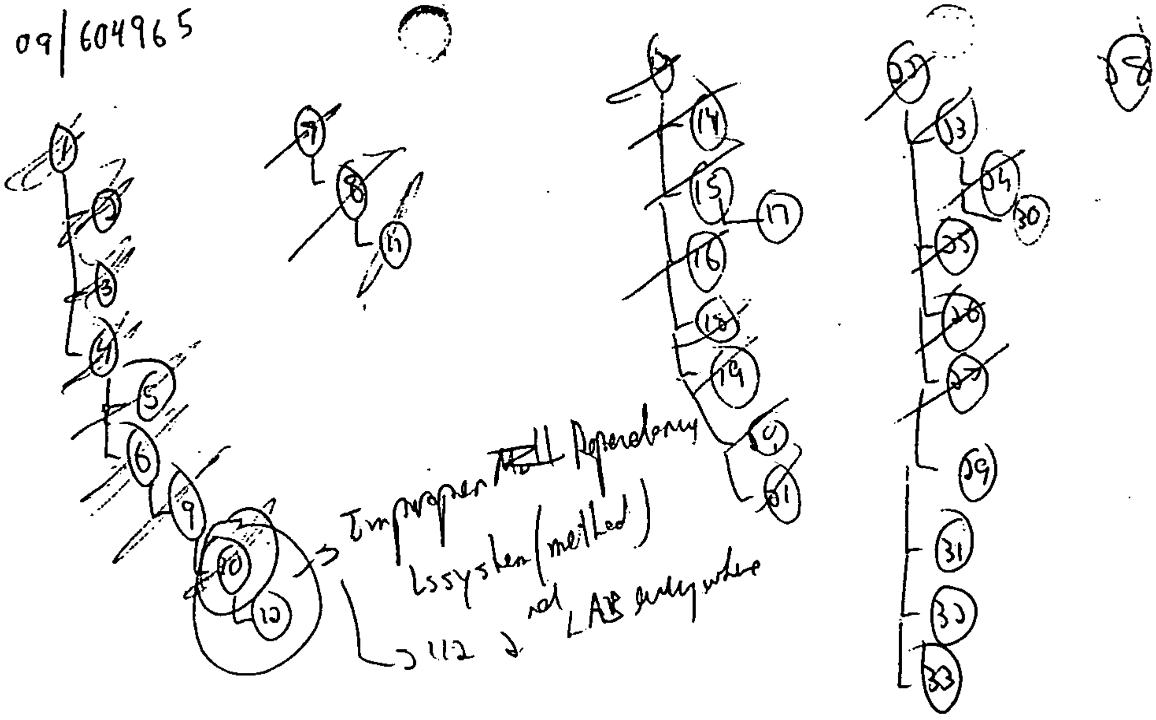
WEST Search History

DATE: Tuesday, November 19, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L7	L6 and server	19	L7
L6	email and voicemail and header and poll$	19	L6
L5	L4 not l3	1	L5
L4	(email near10 server) and (voicemail near10 server) and header and poll$	1	L4
L3	L2 and header and poll$	0	L3
L2	(email near10 server) and (voicemail near10 server) and (email near10 voice)	7	L2
DB=DWPI,USPT,EPAB,JPAB,TDBD; PLUR=YES; OP=OR			
L1	(email near10 server) and (voicemail near10 server) and (email near10 voice) and (text adj10 speech)	3	L1

END OF SEARCH HISTORY

09/604965



— notification

1, 7, 8, 13, 14, 22, 26, 28, 32

2, 9, 13, 14, 26

3, 5, 6, 11, 12, 15, 17, 25, 31

4, 10, 16, 23, 24, 29, 30

18

19

20, 33

21, 27, 32

Cellpoint of 5479411

1186.31 12/6
963.02 11/22
1186.31 11/22
1186.31 11/8

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Search Results - Record(s) 1 through 3 of 3 returned.

☑ 1. Document ID: US 6463145 B1

L1: Entry 1 of 3 File: USPT Oct 8, 2002

DOCUMENT-IDENTIFIER: US 6463145 B1
TITLE: Computer-implemented call forwarding options and methods therefor in a unified messaging system

Detailed Description Text (26):
To elaborate, outgoing voicemails are voice messages sent to a voicemail phone number which may be created via the web or the telephone. Outgoing voicemails may be new voicemails, replies to other messages or forwarded as a voicemail. For example, when forwarding a voicemail via the web, the voicemail may be treated as an attachment to a speech synthesized text message with the recipient address as a telephone number. Outgoing voicemail servers may be geographically distributed and communicate with each other via internet in such a way that the server nearest the destination voicemail phone number may be assigned to send the voicemail via either a circuit-switched call or packet-switched call.

Detailed Description Text (27):
Outgoing facsimiles are facsimile messages sent to a facsimile telephone number which may be created via the web or the telephone. Outgoing facsimiles may be new facsimiles, replies to other messages, forwarded as a facsimile or call-forwarded as a facsimile in which the system stores the incoming facsimile and then forwards the facsimile to the subscriber's facsimile-forward number. For example, when forwarding a facsimile via the web, the facsimile may be treated as an attachment to Tiff conversion of a text message with the recipient address as a phone number. Like outgoing voicemail servers, outgoing facsimile servers may also be geographically distributed. Outgoing facsimile servers may communicate with each other via internet in such a way that the server nearest to the destination facsimile telephone number may be assigned to send the facsimile via either a circuit-switched call or packet-switched call.

Detailed Description Text (28):
Outgoing pages are paging messages sent to a pager number which may be created via the telephone either by the caller or by the system when sending notification. Like outgoing voicemail servers, outgoing page servers may also be geographically distributed. Outgoing page servers may communicate with each other via the internet in such a way that the server nearest to the destination pager telephone number may be assigned to send the page via either a circuit-switched call or packet-switched call.

Detailed Description Text (29):
There may also be outgoing emails and their servers that do not involve circuit switched calls. Some pagers may be alphanumerical type and can receive messages as an email. In this case, the outgoing pager server may delegate these requests to the outgoing email servers.

Detailed Description Text (31):
All types of outgoing message requests (voicemail, facsimile, email, pages) are queued in the database server. These requests can also be associated with a delivery time (e.g., the default time is "now"). Each type of request may be stored in a separate queue. An outgoing server of a particular type of message periodically checks its queue from the database server to see if any request's time is up for delivery.

Detailed Description Text (46):
For alphanumeric pagers with an email address, the outgoing page server may use text to describe the alert message (e.g., "you have a urgent voicemail from caller ID 4152222222 with return number 4153333333") instead of codes as in the case of numeric pagers. The outgoing pager server can then delegate the alert messages to the outgoing email server.

Detailed Description Text (48):
Voice mail messages that are stored may be listened to using either the computer (through an appropriate software/sound card) by clicking on voice mail link 330 (FIG. 3) or a telephone coupled to the telephony-centric network. E-mails that are sent to the subscriber using the subscriber's e-mail address may be read on-line by, for example, clicking on e-mail link 332 (FIG. 3). In one embodiment, telephone server 126 may be equipped with a text-to-speech facility to allow the subscriber to listen to the content of the e-mail message through a telephone. FIG. 3 also shows an outgoing e-mail link 334, which links the subscriber to an e-mail application program to allow the subscriber to compose and send out e-mail messages. In the case of replying an email via phone, a voice recording may be taken and sent as an email attachment.

Other Reference Publication (1):
Jfax.com --Fax, voice mail, email, downloaded from www.jfax.com on Dec. 18, 1998.

☑ 2. Document ID: US 6351523 B1

L1: Entry 2 of 3 File: USPT Feb 26, 2002

DOCUMENT-IDENTIFIER: US 6351523 B1
TITLE: Method and apparatus for management of EMail originated by thin client devices

Abstract Text (1):
A system for providing a voice response to an EMail message, wherein the voice response is generated by a thin client device and transmitted to a cellular, or similar, service and then to a world-wide communications network, includes a conversion mechanism co-located with the cellular service for converting the voice response into a voice data file which is transmitted over the world-wide communications network; an EMail server connected to the world-wide communications network for receiving conventional EMail and voice data files; an EMail-to-voicemail gateway for identifying voice data files; a voicemail interface for receiving voice data files from said EMail-to-voicemail gateway and converting said voice data files into voice streams; a voicemail system, including recipient voicemail boxes; for directing said voice streams into a recipient's voicemail box. A method of generating a voicemail message with a thin client device and transmitting that voicemail message over an EMail system, includes sending a voice mail message over a wireless phone system; converting the voice mail message into a voice data file; transmitting a the voice data file over a world-wide communications network; receiving the voice data file at an EMail server; separating the voice data file from EMail files; changing the voice data file into a voice stream; and directing the voice stream to a recipient's voicemail box.

Brief Summary Text (2):
This invention relates to a combined voicemail/EMail and private branch exchange (PBX) system and method for providing voice response to an EMail message.

Brief Summary Text (5):
In order to appeal to the broader market, it is necessary that these devices support voice and EMail, and that they be equivalent in size and cost to traditional cellular

phones. This is not as difficult as it may seem. First, voice operation is a given. Second, one may argue that EMail sent to mobile users is different than that which is sent to fixed-base users in that the length is generally constrained to several sentences, and attachments are not included. This difference in message composition exists because present-day wireless devices, such as alphanumeric pagers, typically are not capable of processing attachments, the relatively small display size limits the amount of text that is displayed at one time, and the scrolling capability is limited by user patience.

Brief Summary Text (6):
Alphanumeric paging and digital cellular (DC)/personal communications system (PCS) operators offer infrastructure-based services which allow conventional EMail, up to several hundred characters in length to be routed to wireless users. The 3-4 line screens, present on many high-end DC and PCS voice phones are large enough to allow perusal of short text messages. The reception of an EMail message by a user of a DC/PCS device may be supported on a conventional voice phone platform, already in place.

Brief Summary Text (8):
Key industry players have indicated that future voicemail/EMail products will support a reply mechanism which allows the recipient to view the text-based EMail and then compose a voice memo in reply. The voice memo is captured by the device and stored as a compressed audio file which is then mailed to the message originator. While this may be one solution to the problem, it may not be a viable business solution to those millions of business users throughout the world who continue to us legacy PCs, i.e., x486-based and older equipment, that will not adequately support audio file presentation. For this scheme to work, the recipient must have access to a multimedia-capable PC in order to playback the reply. Furthermore, most cubicle-resident business users would prefer not to have sensitive EMail "broadcast" to co-workers who happen to be listening nearby. Neither is the problem solved in the case where a user polls EMail with a DC/PCS device having limited display, and no capability to play a voice file.

Brief Summary Text (9):
The majority of the voice-related EMail prior art is in the field of voice transmission over the internet, using internet protocol (IP). The prior art disclosed various gateways which offer the inverse to the invention described herein, namely, the conversion of voice-to-data in preparation for real-time transmission across an IP network.

Brief Summary Text (11):
U.S. Pat. No. 5,717,742, to Hyde-Thomson, granted Feb. 10, 1998, for Electronic mail system having integrated voice messages, describes a unified in box which allows presentation of voicemail and EMail messages in a consolidated summary "screen".

Brief Summary Text (15):
U.S. Pat. No. 5,557,659, to Hyde-Thomson, granted Sep. 17, 1996, for Electronic mail system having integrated voice messages, describes an integrated EMail system which accepts analog voice input from public switched telephone network (PSTN) interface and converts it to text format.

Brief Summary Text (16):
U.S. Pat. No. 5,479,411, to Klein, granted Dec. 26, 1995, for Multimedia integrated message arrangement, uses text-to-speech processing to convert text-based EMail to an audio representation which is routed to a voicemail system.

Brief Summary Text (21):
A system for providing a voice response to an EMail message, wherein the voice response is generated by a thin client device and transmitted to a cellular, or similar, service and then to a world-wide communications network, includes a conversion mechanism co-located with the cellular service for converting the voice response into a voice data file which is transmitted over the world-wide communications network; an EMail server connected to the world-wide communications network for receiving conventional EMail and voice data files; an EMail-to-voicemail gateway for identifying voice data files; a voicemail interface for receiving voice

data files from said EMail-to-voicemail gateway and converting said voice data files into voice streams; a voicemail system, including recipient voicemail boxes; for directing said voice streams into a recipient's voicemail box.

Brief Summary Text (22):
A method of generating a voicemail message with a thin client device and transmitting that voicemail message over an EMail system, includes sending a voice mail message over a wireless phone system; converting the voice mail message into a voice data file; transmitting a the voice data file over a world-wide communications network; receiving the voice data file at an EMail server; separating the voice data file from EMail files; changing the voice data file into a voice stream; and directing the voice stream to a recipient's voicemail box.

Detailed Description Text (2):
The invention is an EMail-to-voicemail gateway. This invention is infrastructure/server-based. However, the overall system relies upon the existence of client devices which allow the user to: originate and/or reply to EMail by selecting the recipient through conventional means, such as directory look-up, etc.; create a voice memo which is encoded using a defacto standard method; attach the encoded voice memo to an EMail message; and mail the EMail message to the intended recipient. The invention is a server-based hardware/software system which identifies attached audio files on inbound EMail and diverts the audio portion to an associated voicemail box. The recipient may then review the EMail reply in privacy using the existing voicemail message manipulation facilities.

Detailed Description Text (5):
(1) an EMail server, such as simple mail transfer protocol (SMTP), for sending mail, and post office protocol 3 (POP3) for receiving mail;

Detailed Description Text (9):
Referring now to FIG. 1, the system of the invention is depicted generally at 10. System 10 includes a DC/PCS, or other thin client device, 12 which, for purposes of this invention, receives EMail message signals 14 from an antenna 16, and transmits voice reply signals 15 to such messages to antenna 16. Antenna 16 is connected to a base transceiver 18, which in turn is connected to a cellular processing system 20. As this disclosure is concerned with the generation of a voice signal from device 12 which will ultimately appear in a recipient's voicemail box, signal flow is shown in one direction only.

Detailed Description Text (10):
Cellular processing system 20 includes the conventional base site controller 22, a mobile switch center 24 and an inter-working function (IWF) 26. Voice reply signal 15 is sent by a user of device 12 in response to a received EMail message that the user viewed on a display screen of device 12. As the voice message is a reply to an EMail message, the EMail address of the original sender, soon-to-be recipient, is known to device 12. Voice reply signal 15 includes an EMail reply directed to the original sender, and a voice message reply, in the form of an attachment to the reply EMail generated by device 12.

Detailed Description Text (11):
System 20 is connected to a public switched telephone network (PSTN) 28, which is connected, possibly through an internet service provider (ISP) 30, to a world-wide communications network known as the internet 32. Internet 32 connects to a receiving ISP 34, which provides service to an EMail server 36, probably located at a business location. EMail server 36 includes therein an EMail-to-voicemail gateway 38, which distinguishes conventional EMail messages from those messages generated by device 12 which are intended, ultimately, to reach a recipient's voicemail box. Special purpose EMail-to-voicemail gateway 38 allows EMail messages, with attached voice data files, to be specially processed such that the voice content portion may be converted back to audio and forwarded to the recipient's voicemail box.

Detailed Description Text (12):
A lookup table 40 is provided to link EMail addresses with voicemail box locations. The voice data file, as received in server 36, is separated from the EMail reply, and is transformed into a voice stream by a voicemail interface 42, transmitted to the

voicemail system 44 and then to a PBX 46. Lookup table 40 contains a list of EMail addresses for company personnel and voice mail box addresses associated with each person. This provides a direction for the voice mail message that has been separated from the EMail reply. This server hardware/software solution allows attached voice memos to be stripped from inbound EMail and redirected to the voicemail box associated with the EMail recipient. This solves the problems associated with privacy concerns. Diverting the reply to voicemail further enhances the utility of the message, as traditional voice message manipulation tools, such as play, rewind, speed-up, forward, etc., may then be applied.

Detailed Description Text (14):
Server 36 transmits the EMail reply to which the voice data file was attached as conventional EMail to an EMail network 52, and to conventional EMail client devices, such as PCs, 54. The presence of such an EMail reply may be one notice that the recipient has voicemail in the associated voicemail box.

Detailed Description Text (15):
Referring now to FIG. 2, device 12 is shown in greater detail. It will be appreciated that only those components of device 12 necessary to explain the invention hereof are depicted in the figure. Device 12 received EMail message signal 14, which is routed to a POP3 client 62, and then to a MMI 64, whereupon it is displayed on display 60. Device 12 includes some form of command mechanism, such as a key or voice command, to generate a reply to the displayed EMail message. The reply includes, in the preferred embodiment, a .wav file 66, or other audio file, which is transmitted as an attachment to the reply EMail. The reply is handled by SMTP client 68 and leaves device 12 as voice reply signal 15.

Detailed Description Text (16):
From an implementation standpoint, it is clear that the primary task of the system is modifying SMTP server 36 software portion of the corporate EMail gateway and implementing lookup table function 40 to allow the EMail-to-voicemail conversion. Specific algorithms and/or protocols are required to exchange the voice data file content with the voicemail server. Taking a least common denominator approach, it may be assumed that interface 42 to the voicemail system will be through a plain old telephone system (POTS) interface with dual tone multi frequency (DTMF) signaling. The voicemail interface hardware may then be little more than a data access arrangement (DAA), which may be controlled by software on the corporate EMail server. More powerful voicemail systems may allow varying degrees of network connectivity such that the interface hardware function is unnecessary. Some voicemail systems already have IP access for administration purposes, such as provisioning, extracting call records, etc.

Detailed Description Text (20):
(3) convert said voice memo component to a format suitable for transfer to voicemail server;

Detailed Description Text (22):
(5) initiate session with voicemail server; and

CLAIMS:

1. A system for providing a voice response to an EMail message, wherein the voice response is generated by a user using a thin client device which is subscribed to a cellular service, wherein the voice response is transmitted to the cellular service and then to a world-wide communications network, comprising:

a conversion mechanism in the thin client device for converting the voice response into a voice data file which is transmitted over the world-wide communications network;

an EMail server connected to the world-wide communications network for receiving conventional EMail and said voice data file;

an EMail-to-voicemail gateway for identifying said voice data file;

a voicemail interface for receiving said voice data file from said EMail-to-voicemail gateway and converting said voice data file into a voice stream;

a voicemail system, including recipient voicemail boxes; for directing said voice stream into a recipient's voicemail box.

3. The system of claim 1 wherein the conversion mechanism includes an attaching mechanism for attaching said voice data file to a reply EMail message thereby making an attached voice data file.

4. The system of claim 3 wherein said EMail server includes a splitting mechanism for splitting said attached voice mail data file from said EMail reply message.

5. The system of claim 1 wherein said EMail-to-voicemail gateway is located in said EMail server.

6. A method of generating a voicemail message by a user using a thin client device and transmitting that voicemail message over an EMail system, comprising:

sending a voice mail message over a wireless phone system;

converting the voice mail message into a voice data file;

transmitting the voice data file over a world-wide communications network;

receiving the voice data file at an EMail server;

separating the voice data file from EMail files;

changing the voice data file into a voice stream; and

directing the voice stream to a recipient's voicemail box.

7. The method of claim 6 wherein said transmitting includes transmitting the voice data file as an attachment to an EMail message.

9. The method of claim 7 wherein said transmitting includes transmitting a voice message as an EMail message.

10. A method of transmitting a voice message attached to an EMail message over a world-wide communications network as a voice data file, including:

generating a voicemail message by a user using a thin client device;

sending a voicemail message over a wireless phone system;

converting the voicemail message into a voice data file; and

directing the voice data file to a recipient's voicemail box.

11. The method of claim 10 wherein a voicemail server is connected to the world-wide communications network.

12. The method of claim 10 which includes separating the voice data file from the EMail message and converting the voice data file to a voice stream for storage in the recipient's voicemail box.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | MMC | Draw Desc | Image

☑ 3. Document ID: US 6263064 B1

L1: Entry 3 of 3 File: USPT Jul 17, 2001

DOCUMENT-IDENTIFIER: US 6263064 B1
TITLE: Centralized communication control center for visually and audibly updating communication options associated with communication services of a unified messaging system and methods therefor

Detailed Description Text (25):
To elaborate, outgoing voicemails are voice messages sent to a voicemail phone number which may be created via the web or the telephone. Outgoing voicemails may be new voicemails, replies to other messages or forwarded as a voicemail. For example, when forwarding a voicemail via the web, the voicemail may be treated as an attachment to a speech synthesized text message with the recipient address as a telephone number. Outgoing voicemail servers may be geographically distributed and communicate with each other via internet in such a way that the server nearest the destination voicemail phone number may be assigned to send the voicemail via either a circuit-switched call or packet-switched call.

Detailed Description Text (26):
Outgoing facsimiles are facsimile messages sent to a facsimile telephone number which may be created via the web or the telephone. Outgoing facsimiles may be new facsimiles, replies to other messages, forwarded as a facsimile or call-forwarded as a facsimile in which the system stores the incoming facsimile and then forwards the facsimile to the subscriber's facsimile-forward number. For example, when forwarding a facsimile via the web, the facsimile may be treated as an attachment to Tiff conversion of a text message with the recipient address as a phone number. Like outgoing voicemail servers, outgoing facsimile servers may also be geographically distributed. Outgoing facsimile servers may communicate with each other via internet in such a way that the server nearest to the destination facsimile telephone number may be assigned to send the facsimile via either a circuit-switched call or packet-switched call.

Detailed Description Text (27):
Outgoing pages are paging messages sent to a pager number which may be created via the telephone either by the caller or by the system when sending notification. Like outgoing voicemail servers, outgoing page servers may also be geographically distributed. Outgoing page servers may communicate with each other via the internet in such a way that the server nearest to the destination pager telephone number may be assigned to send the page via either a circuit-switched call or packet-switched call.

Detailed Description Text (28):
There may also be outgoing emails and their servers that do not involve circuit switched calls. Some pagers may be alphanumerical type and can receive messages as an email. In this case, the outgoing pager server may delegate these requests to the outgoing email servers.

Detailed Description Text (30):
All types of outgoing message requests (voicemail, facsimile, email, pages) are queued in the database server. These requests can also be associated with a delivery time (e.g., the default time is "now"). Each type of request may be stored in a separate queue. An outgoing server of a particular type of message periodically checks its queue from the database server to see if any request's time is up for delivery.

Detailed Description Text (44):
For alphanumeric pagers with an email address, the outgoing page server may use text to describe the alert message (e.g., "you have a urgent voicemail from caller ID 4152222222 with return number 4153333333") instead of codes as in the case of numeric pagers. The outgoing pager server can then delegate the alert messages to the outgoing email server.

Detailed Description Text (45):

Voice mail messages that are stored may be listened to using either the computer (through an appropriate software/sound card) by clicking on voice mail link 330 (FIG. 3) or a telephone coupled to the telephony-centric network. E-mails that are sent to the subscriber using the subscriber's e-mail address may be read on-line by, for example, clicking on e-mail link 332 (FIG. 3). In one embodiment, telephone server 126 may be equipped with a text-to-speech facility to allow the subscriber to listen to the content of the e-mail message through a telephone. FIG. 3 also shows an outgoing e-mail link 334, which links the subscriber to an e-mail application program to allow the subscriber to compose and send out e-mail messages. In the case of replying an email via phone, a voice recording may be taken and sent as an email attachment.

Other Reference Publication (1):
JFAX.COM--Fax, voice mail, email, downloaded from www.jfax.com on Dec. 18, 1998.

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Terms	Documents
(email near10 server) and (voicemail near10 server) and (email near10 voice) and (text adj10 speech)	3

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